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**BEFORE THE PUBLIC UTILITIES COMMISSION**
**OF THE STATE OF CALIFORNIA**

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**California Energy Commission Docket #07-OIIP-01**

# OPENING COMMENTS OF THE NATURAL RESOURCES DEFENSE COUNCIL (NRDC) AND UNION OF CONCERNED SCIENTISTS (UCS) ON THE "FIRST SELLER" APPROACH AND OTHER RECOMMENDATIONS OF THE MARKET ADVISORY COMMITTEE REPORT

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## I. Introduction and Summary

The Natural Resources Defense Council (NRDC) and Union of Concerned Scientists (UCS) respectfully submit these opening comments in accordance with the "Administrative Law Judges' Ruling Requesting Comments and Legal Briefs on Market Advisory Committee Report and Notice of En Banc Hearing" (ALJ Ruling), dated July 19, 2007, and in accordance with Rules 1.9 and 1.10 of the California Public Utilities Commission's (CPUC) Rules of Practice and Procedure. NRDC/UCS also concurrently submit these comments to the California Energy Commission (CEC) in Docket #07-OIIP-01, the CEC's sister proceeding to this CPUC proceeding.

NRDC is a non-profit membership organization with a long-standing interest in minimizing the societal costs of the reliable energy services that a healthy California economy needs. In this proceeding, NRDC represents its more than 124,000 California members' interest in receiving affordable energy services and reducing the environmental impact of California's energy consumption. UCS is a leading science-based non-profit working for a healthy environment and a safer world. Its Clean Energy Program examines the benefits and costs of the country's energy use and promotes energy solutions that are sustainable both environmentally and economically.

NRDC and UCS commend the two Commissions for their leadership in addressing global warming and reducing greenhouse gas (GHG) emissions through their decisions and actions over the past several years. The ALJ ruling requested comments and legal briefs on certain issues raised by the June 30, 2007 Market Advisory Committee (MAC) report entitled, "Recommendations for Designing a Greenhouse Gas Cap-and-Trade System for California" (MAC report). In particular, the Commissions requested comments focused on the design of a regulatory structure for GHG emission reductions referred to in the MAC report as the "first-seller" approach. NRDC is concurrently filing an opening legal brief on the "first-seller" approach under separate cover.

NRDC and UCS appreciate the Commissions' efforts to better understand and evaluate the legal, regulatory, market and operational issues associated with the different regulatory approaches proposed for the electric sector, namely either a load-based approach or deliverer/first-seller (hereinafter "first-seller") approach. These comments begin with overarching comments and key policy issues that NRDC/UCS urge the Commissions to address, then proceed with responses to select questions listed in the ALJ ruling, and finally provide comments on other aspects of the MAC report recommendations. NRDC and UCS look forward to discussing these comments with other parties at the August 21, 2007 en banc hearing. In summary:

- The MAC report left many questions unanswered that must be addressed before the state determines whether a "load-based" approach or a "first-seller" approach to the point of regulation will best meet California's goals.
- NRDC/UCS strongly encourage the Commissions to carefully consider the legal issues surrounding the "first seller" approach as a threshold issue.
- The federal and regional policy landscape has changed significantly since the CPUC adopted its decision to establish a load-based cap on load-serving entities, and this now allows the Commissions to consider different program structures that involve other states in addition to California.

- The Commissions should clearly define and prioritize criteria to assess the significant policy tradeoffs between the different regulatory systems.

## II. Overarching Comments

### A. The MAC report left many questions unanswered that must be addressed before the state determines whether a "load-based" approach or a "first-seller" approach to the point of regulation will best meet California's goals.

The MAC report provided a brief initial analysis of how the state might make the "first sellers" of electricity into California's power market the point of regulation. Parties' responses to the detailed set of questions presented in the ALJ ruling should help fill a critical information gap about the operational details of the first-seller approach and its strengths and weaknesses compared to the load-based approach.

### B. NRDC/UCS strongly encourage the Commissions to carefully consider the legal issues surrounding the "first seller" approach as a threshold issue.

Under separate cover, NRDC has provided a legal analysis of the first-seller approach. Irrespective of the policy arguments for either approach to the point of regulation, NRDC believes that the first-seller approach creates more risk of federal preemption than a load-based approach, although it may be legally defensible. However, the Commissions must carefully weigh the legal risk of the first-seller approach against the criteria for evaluating the two approaches on a policy basis, as suggested below. If the Commissions determine that the "first seller" approach is legally indefensible, it may not be worthwhile to consider it further.

If the Commissions find the first-seller approach preferable as a matter of public policy but are concerned about potential legal issues, it is possible to modify the approach to address those concerns. For example, the Commissions could develop a hybrid system that would regulate emissions associated with electricity generated within California at the source, and regulate emissions associated with imports through a load-based cap.

This is the proposed method to prevent leakage that several Northeast states are currently considering, and regulates emissions associated with imports through a load-based cap, would not regulate entities engaged in wholesale power transactions and would avoid legal issues associated with the Federal Power Act.

**C. The federal and regional policy landscape has changed significantly since the CPUC adopted its decision to establish a load-based cap on load-serving entities, and this now allows to Commissions to consider different program structures that involve other states in addition to California.**

In February 2006, the CPUC adopted D.06-02-032, stating its intent to develop a load-based cap for load-serving entities. This decision followed workshops that were held in March 2005, which included extensive discussion about developing procurement incentive mechanisms. At that time, the CPUC was the only regulatory authority in the region that was seriously proposing to address GHG emissions through a mandatory limit. In that context, the CPUC rightly preferred a load-based approach for multiple policy reasons, including its ability to address leakage concerns due to the significant portion of California's electricity demand that is served by imported power.

The landscape has changed significantly since the Commission's decision. Congressional attention to GHG regulation has increased dramatically, and it is likely that a federal cap-and-trade program for GHG emissions will be adopted in the relatively near future. In addition, Governor Schwarzenegger has signed a Memorandum of Understanding with five other Western states, including Arizona, New Mexico, Oregon, Utah, and Washington, forming the Western Regional Climate Action Initiative (WRCAI), to jointly design a regional cap and trade program. These two developments toward both a federal and regional program to limit GHG emissions allow the Commissions to consider new program designs that would involve more states beyond just California, which simply was not practical even two years ago.

### D. The Commissions should clearly define and prioritize criteria to assess the significant policy tradeoffs between the different regulatory systems.

The MAC report presented several criteria for assessing different regulatory approaches for the electricity sector, including (p. 53):

- Ability to control leakage;
- Ability to track in-state emissions;
- Impact on consumer prices;
- Ease of administration;
- Ability to promote low-cost emission reduction strategies; and
- Ability to serve as a model for other cap and trade programs.

In making its recommendation for the first-seller approach, the MAC clearly prioritized two considerations: "simplicity and ease of emissions accounting" and "potential to serve as a regional/national model and to link easily with an international system." (p. 52)

Both the first-seller and load-based approaches offer advantages and disadvantages. In advocating for one approach or another, many parties are implicitly prioritizing certain criteria over others. In order to select the best system, NRDC/UCS strongly encourage the Commissions to clearly define and prioritize the criteria with which the tradeoffs between the different regulatory systems should be assessed.

NRDC/UCS believe that there are four primary criteria that highlight the *differences* between the two approaches:

- Precision of emissions accounting;
- Cost to consumers;
- Ability to serve as a model for other cap and trade programs and integrate into a federal program; and
- Ability to promote long-term emission reduction strategies.

NRDC/UCS strongly urge the Commissions to explore these and any other relevant criteria, and to prioritize the criteria in order to select the best approach.

NRDC/UCS briefly provide our assessment of the first-seller and load-based approaches relative to each of these criteria.

### *1. Precision of emissions accounting*

In the near term, given currently available information about retail sellers' emissions profiles and assuming that information on importing first sellers is available to CARB,[1] the first-seller approach will provide more precise information about emissions attributable to the regulated entity. In the absence of an emissions tracking system, the load-based approach involves the averaging of emissions from some power procured from in-state power plants (e.g., through system power contracts or the ISO's market). In contrast, in-state power plants would be regulated entities in a first-seller approach and accounting for their emissions would be straightforward.

### *2. Cost to consumers*

The cost to consumers will be determined by both the regulatory approach and how allowances are distributed. Historically, governments have implemented pollution caps on generators and distributed allowances to them free of charge on the basis of emissions, commonly known as grandfathering. This approach increases electricity rates for consumers (since generators include the value of allowances in their bid prices, raising the market price for all power sources) without providing any relief on energy bills (since the value of allowances are enjoyed by the generators' shareholders). In the alternative, it is possible to use the value of allowances to reduce consumer costs. Under either a load-based or first-seller approach, California could auction allowances and use the proceeds to increase energy efficiency, spur investment in other low-cost emission reduction strategies, increase protection for low-income consumers, and provide consumer rebates.

While the method of allowance distribution will substantially affect customer costs, the chosen point of regulation will also affect costs to consumers. In California, NRDC/UCS believe that, under most program designs the load-based approach will result in lower costs than the first-seller approach. Under the load-based approach, generators have no opportunity to include the value of allowances in their bid prices. Under the

[1] NRDC/UCS do not know whether this information is available to CARB, and look forward to parties' responses to the Commissions' questions on this.

first-seller approach, if allowances are auctioned or grandfathered, generators will include the value of allowances in their bid prices, raising the market price for all power sources.

### 3. ***Ability to serve as a model for other cap and trade programs and integrate into a federal program***

NRDC/UCS believe it is likely that a future federal program will use a generator-based point of regulation, because such an approach is simpler administratively, provides more precise emissions accounting, and leakage issues are minimal if it is applied nation-wide. A generator-based approach has also been proposed in most of the bills pending before Congress. As such, NRDC/UCS believe that the first-seller approach (which uses a generator-based approach for in-state generators) is better able to serve as a model for a federal system. In addition, once a federal program is in place, NRDC/UCS believe that it will be in California's best interest to integrate with the federal cap and trade program (and not maintain a separate one based on a different regulatory model), while continuing the state's traditional role in administering the many programs that directly spur global warming solutions (such as aggressive energy efficiency programs and standards, renewables procurement, etc.). If California adopts a first-seller approach, it will not require significant structural changes to integrate into the federal system (assuming it is generator-based), though transitional issues will inevitably arise.

As importantly, California's program design choices may have greater influence on the shape of a federal program if it adopts the first-seller, or another generator-based approach. This is especially important with respect to the issue of allowance auctions. Under a scenario in which Congress adopts a generator-based cap, the most important thing California can do to protect consumers is to support allowance auctions and the principle that the value of allowances should be used to reduce costs for consumers and provide other public benefits.

However, if a future federal program is based on an upstream point of regulation (as the Bingaman/Specter federal "Low Carbon Economy Act" of 2007 currently proposes), neither the first-seller nor the load-based designs under consideration in California could create a model for, or be easily transitioned to integrate with, this type of

federal system.[2] The Bingaman/Specter bill would establish an upstream point of regulation for all sources except for coal-fired power plants, which would be regulated as point sources. Since California has no large in-state coal-fired power plants, California would likely need to discard either the first-seller or load-based regulation approach in order to integrate into an upstream federal system like that envisioned by the Bingaman/Specter bill.

### *4. Ability to promote long-term emission reduction strategies*

Under either a load-based or first-seller approach, the pollution cap sends a price signal to all actors in the market place that will make lower-carbon resources relatively less expensive and higher-carbon resources relatively more expensive. As discussed above, a load-based cap dilutes the price signal that is sent to power plant owners and developers to the extent it relies on default emission values, whenever power is sold through the spot market or unspecified contracts. Therefore, a first-seller approach provides a stronger price signal for investment in supply side GHG reduction strategies than a load-based cap.

However, NRDC/UCS believe that the short-term price signal is not the only, or even the most important driver of long-term investments in least cost reduction strategies. NRDC/UCS are also convinced that many of the lowest-cost investment opportunities exist on the demand side of the equation.

Under either a load-based or first-seller approach, the entity required to hold allowances (or face penalties) has an interest in keeping its compliance costs low, and NRDC/UCS believe that this provides an additional incentive (beyond a price signal) to identify low-cost reduction opportunities. Under the first-seller approach, this entity is the generator or a wholesale seller, either of which can pass its compliance costs onto its customers. However, if it fails to manage compliance costs as well as its competitors, it will lose market-share and profitability. Unfortunately, many low-cost reduction strategies –such as energy efficiency – will do nothing to lower compliance costs for

[2] For more information about the Bingaman/Specter bill, see http://energy.senate.gov/public/index.cfm?FuseAction=IssueItems.View&IssueItem_ID=55.

these entities. The only way to promote such investments under a first-seller approach is to use the allowance value.

In contrast, retail providers are the key decision-makers (together with their public governing boards and/or the CPUC) for demand side investments and new long-term supply side investments, since almost all new generation investments require long-term commitments from retail providers. The long-term investments made by retail sellers will be the key determinant of whether the sector meets its cap (and whether adequate allowances are available), and these decisions will be made many years in advance of any compliance period. Therefore, NRDC/UCS believe that in California, a load-based approach, which makes retail providers *directly* responsible for holding allowances and managing compliance costs, will provide stronger incentives for these entities to aggressively pursue long-term investments and innovation in low-carbon resources that will help the state achieve both the 2020 GHG emissions target and the deeper emissions reductions that are needed in later years.

However, in some other states, retail providers have substantially less of a role in making long-term investments, in particular in end-use efficiency. It is important to note that, like generators, retail providers will pass their compliance costs onto their customers (if they are allowed to do so by their regulatory agencies or governing bodies). If regulatory policies do not promote investment in least-cost energy resources (as they do not in most other states), it is unreasonable to expect that retail providers will invest in efficiency as means of reducing their emissions under a load-based cap, or that regulators will prevent them from passing along the (higher) cost of purchased allowances to their customers.

## III. Responses to Questions in ALJ Ruling

### A. Basic Definitions

1. ***Is the above description of this deliverer/first-seller approach accurate? Comment on whether you agree with this description, and if not, explain how the first-seller approach should be described differently and why.***

In these comments, NRDC/UCS have assumed that the definition of the "first-seller" approach is as presented in the ALJ Ruling:

> "(a) for in-state California generation, the first seller is the generator, in all cases; and (b) for imported power, the first seller is the entity that first delivers electricity at a point of delivery within California." (p. 3)

NRDC/UCS believe that part (a) of this definition for in-state generation is commonly agreed upon by proponents of the first-seller approach. However, it seems that there are several different interpretations of the identity of the deliverer/first-seller for imported power. NRDC/UCS look forward to reviewing the responses provided by supporters of the "first-seller" approach to determine if the definition listed by the ALJ Ruling comports with their proposals.

NRDC/UCS are hopeful that these responses will shed much needed light on basic questions about who the entities defined as first sellers would be, how many entities would be defined as first sellers, how many are out-of-state, and what categories they would fall under (e.g., investor-owned utilities, out-of-state generators, marketers, etc.). Before the Commissions can determine if and how first sellers might practically be regulated, it is essential that parties supporting the deliverer/first-seller approach clearly identify these entities.

2. ***For imports, who has ownership of electricity when it enters California? Is the "Purchasing/Selling Entity" (on the North American Electric Reliability Corporation (NERC) E-tag) listed at the first Point of Delivery in California the deliverer/first seller? If this is generally the case, are there any exceptions?***

3. ***Are there any inter-Balancing Authority imports not accounted for by E-tags? If so, describe these instances and explain how these imports can be accounted for.***

NRDC/UCS understand that E-tags are currently required for all electricity transactions that cross from one balancing authority (BA) to another. However, balancing authority borders do not line up perfectly with the California border, and there are some movements of electricity across California's borders that are intra-BA and therefore do not require associated E-tags. The Western Electricity Coordinating

Council's (WECC) map of balancing authorities identifies six BAs that cover at least some part of California: California Independent System Operator (CAISO), Pacificorp – West (PACW), Sacramento Municipal Utility District (SMUD), Turlock Irrigation District (TID), Los Angeles Department of Water and Power (LADWP), and Imperial Irrigation District (IID). Of these, only SMUD, TID, and LADWP are fully contained within California's borders; PACW and IID straddle the California border; and CAISO, though mostly within California, seems to have some small areas that extend into Mexico.[3]

At this time, NRDC/UCS do not have a specific recommendation for accounting for imports that are not accounted for by E-tags. As a general principle, however, it is essential that CARB be able to clearly and easily identify the deliverer or first-seller for all electricity that is delivered into the state in order to implement a deliverer/first-seller approach.

4. ***What agency could/would identify importing contractual parties? Is there already a state or federal official compilation of these market participants?***

As CARB is the California agency with regulatory authority to implement AB 32, CARB would ultimately need to identify importing contractual parties, though it could do so with assistance from the Commissions, the CAISO, and other agencies. The importing contractual parties should include both existing deliverer/first-sellers as well as new market entrants. At this time, it is unclear to NRDC/UCS whether CARB would be able to easily access the information that is required to identify first-sellers, and whether the identity of these first-sellers would be publicly available.

5. ***Could the deliverer/first-seller be identified by means other than the NERC E-tag? If so, please explain.***

6. ***How would a deliverer/first-seller system deal with power marketers and brokers?***

[3] WECC, "Information Summary: October 2006," http://www.wecc.biz/documents/library/publications/infosum/2006_infosum.pdf.

If power marketers and brokers fall under the definition of first sellers, which would presumably be the case for some imports, these marketers and brokers would also be considered regulated entities under the first-seller system and would be subject to all regulations enforced upon first-sellers.

7. ***How would treatment of imports differ in a deliverer/first-seller system compared to a load-based approach?***

The consideration of emissions from imports is required under AB 32, as "statewide greenhouse gas emissions" is defined as follows:

> "Statewide greenhouse gas emissions" means the total annual emissions of greenhouse gases in the state, including all emissions of greenhouse gases from the generation of electricity delivered to and consumed in California, accounting for transmission and distribution line losses, whether the electricity is generated in state or imported.[4]

The emissions contributions of California's imported electricity outweigh the emissions contribution of in-state generation; over half of the emissions associated with the consumption of electricity in California come from imported electricity. Under either a first-seller or a load-based approach, without an emissions tracking system, the determination of emissions from imports will involve some amount of estimation and imprecision with currently-available information.

8. ***To sum up your answers to the previous questions, provide a succinct but complete definition that identifies, for each way in which electricity could be delivered to the California grid, the entities that would be responsible for compliance with AB 32 regulations under a deliverer/first-seller approach.***

## B. General Policy Issues

9. ***Compare and contrast the environmental integrity of a deliverer/first-seller and a load-based approach. How would a deliverer/first-seller approach address leakage? How would a deliverer/first-seller approach address contract shuffling?***

[4] Health and Safety Code, Section 38505(m).

***10. Would the scale of possible emissions leakage or contract shuffling differ under the deliverer/first-seller approach compared to a load-based approach?***

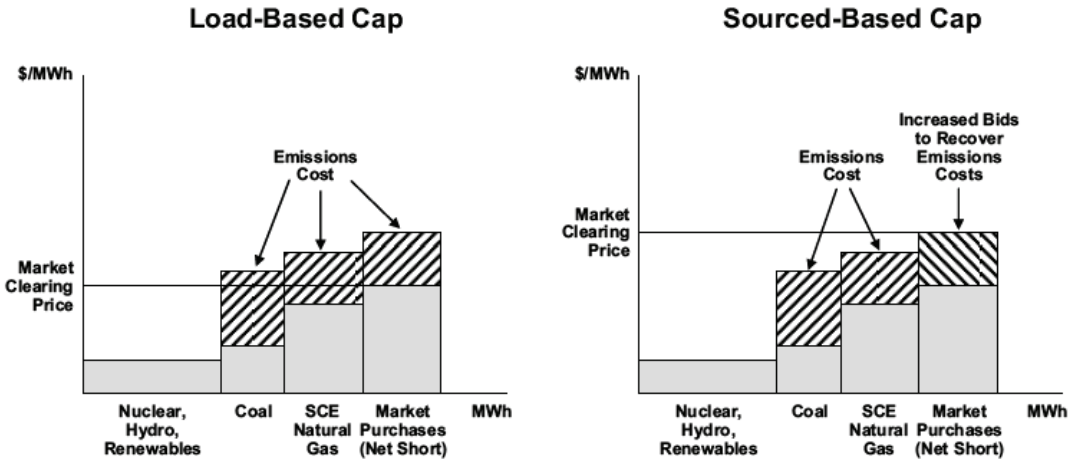
***11. Is there any advantage to applying the deliverer/first-seller approach to reporting only, while having the retail providers be the point of regulation (as with load-based)? Why or why not?***

Entities that are the point of regulation will need to be subject to any reporting requirements. It may be beneficial to have additional information provided through reporting by first-sellers, even if the retail providers are the point of regulation. However, as previously stated, it is uncertain if the California agencies would be able to reliably access, verify, and enforce reporting for first-sellers.

***12. Compare and contrast the deliverer/first-seller and load-based approaches in terms of their impacts on electricity prices, costs, and reliability for consumers.***

The impacts on electricity prices and costs of emissions limits on the electric sector depend on several factors, including the choice of allowance distribution method, the GHG reduction measures taken to comply with the emissions limit, and the point of regulation. The Commissions should continue to promote low-cost GHG reduction strategies, such as cost-effective energy efficiency, and should recommend that allowances be distributed in a manner that will minimize cost to consumers (e.g. by auctioning allowances and using the proceeds to spur investment in low-cost emission reduction strategies).

The chosen point of regulation will also affect consumer costs. In California, NRDC/UCS believe that under most program designs the load-based approach will result in lower consumer costs than the first-seller approach. Under a first-seller system, generators (or first sellers) bid prices that include the cost (whether the actual cost or the opportunity cost) of allowances, thereby raising the market price for all generators in the spot market. Under a load-based system, generators have no opportunity to include the value of allowances in their bid prices. In Southern California Edison's (SCE) July 2, 2007 opening comments (p. 17) on the staff's draft reporting proposal, SCE included a figure, copied below, which illustrates the difference well.




If one assumes that the market is competitive and generators will bid their actual costs (in order to operate whenever it is profitable), the cost to consumers under a load-based cap is the total area under the market clearing price line, plus the shaded area above the line. This is lower than the cost to consumers under a source-based (or deliverer/first-seller) cap, in which the market-clearing price increases by the $/MWh emissions cost of the marginal generator. Of course, this diagram is an oversimplification, since California does not procure through one centralized market; however, it illustrates one of the key differences between the approaches.

***13. Would a deliverer/first-seller approach and a load-based approach have different impacts on wholesale power prices? Which would result in higher prices? Why? Is this good or bad?***

Please see response to question 12.

***14. What impact would a deliverer/first-seller approach have on long-term investment in low-GHG emitting generation technologies? Is this better or worse than under a load-based cap? Why?***

See Section II.D.4 of the "Overarching Comments" section for an analysis of these questions.

***15. How would a deliverer/first-seller approach interact with an upstream program design as articulated in Chapter 4 of the Market Advisory Committee report? Explain your answer in detail.***

***16. What impact would a deliverer/first-seller approach have on electricity service providers?***

## C. Interaction with Energy Markets

***17. Compare and contrast the impact that a deliverer/first seller and a load-based system would have on the existing wholesale energy markets, both at the California Independent System Operator (CAISO) and outside of it.***

***18. For those entities participating in the CAISO markets, what would be the likely differential impacts of a deliverer/first-seller versus a load-based system on the CAISO's implementation of the Market Redesign and Technology Update (MRTU) system, including day-ahead and real-time markets for energy, transmission, and reserves?***

Under either a first-seller or load-based system, modifications will need to be made to the MRTU to allow CARB access to information about the electricity that passes through both the day-ahead and real-time markets.

***19. To what extent would either approach (deliverer/first-seller or load-based) be likely to alter the dispatch of existing generation units in the near-term? Why? If there is a difference between the approaches, how significant would it be?***

The extent to which either approach would be likely to alter the dispatch of existing generation in the near-term is not the most important policy consideration. Instead, the larger and overriding policy goal in designing the structure of GHG regulation should be to fundamentally affect *long-term* investments and resource allocation decisions in the electricity sector. Although changes in dispatch will certainly impact near-term emissions, the policy focus should be on the long-term emissions of the electricity sector and whether the necessary infrastructure will be in place to deliver the long-term GHG emissions reductions (both the 2020 limit established by AB 32 as well

as the Governor's longer term goal of reducing California's GHG emissions to 80% below 1990 levels by 2050).[5]

## D. Interaction with Existing Programs and Policies

***20. How would a deliverer/first-seller approach interact with the Public Utilities Commission's Resource Adequacy requirements and procurement/portfolio oversight? How would this approach affect efforts to maintain resource adequacy by the publicly-owned utilities (POUs)?***

***21. How would a deliverer/first-seller approach interact with the Public Utilities Commission's promotion of end-use efficiency? How would this approach affect energy efficiency programs for the POUs? Under which system (deliverer/first-seller or load-based) would the penetration of end-use efficiency likely be greater? Why?***

Cost-effective end-use energy efficiency (EE) is California's top priority resource in its loading order of resources established by the state energy agencies' Energy Action Plans. Over the past several years, the CPUC has worked to establish an effective policy package to promote EE that serves as a model that is now being replicated across the country and in other countries such as China. The CPUC has established aggressive ten-year energy savings goals (which it will continue to update over time) for each of the IOUs; has placed the IOUs in charge of administering EE portfolios that will meet or exceed those goals; and is now in the process of finalizing a risk-reward incentive mechanism to further align the IOUs' interests in EE with those of their customers. The IOUs' 2006-2008 EE portfolios are expected to avoid the need for three 500 MW power plants and reduce global warming pollution by 3.4 million tons of carbon dioxide in 2008.[6] Moreover, the CPUC emphasized the economic benefits of the EE programs:

> The overall impact of the programs is that customer bills will *decrease* relative to the level without the energy efficiency programs. This is evident in the more than $2.5 billion in net benefits that the programs will provide, which translates into reduced utility revenue requirements and lower bills for customers.[7]

[5] Executive Order S-3-05.
[6] CPUC D.05-09-043, p. 3.
[7] CPUC D.05-09-043, p. 49.

Under either a load-based or first-seller system, these successful EE policies should be continued. The publicly-owned utilities' (POU) EE efforts are also ramping up under the requirements of AB 2021.

Both IOUs and POUs serve as portfolio managers responsible for assembling the long-term mix of demand- and supply-side resources in which to invest to meet their customers' needs. Under a load-based approach, in which the retail providers including IOUs and POUs would be the regulated entities, further investments in EE are completely aligned with the regulated entities' responsibility for reducing the GHG emissions associated with their customers' energy consumption. Thus, a load-based approach would nicely complement existing EE policies and encourage further EE investments, arguably the lowest-cost emission reduction measure available. Under a first-seller approach, however, the regulated entities (either in-state power plants or importing first-sellers) are not responsible for end-use EE investments and in fact have a narrower span of emission reduction measures available to them. Of course, the CPUC should continue its EE policies for IOUs regardless of which approach is used for the point of regulation for GHG emissions in the electricity sector.

***22. How would a deliverer/first-seller approach interact with the State's Renewable Portfolio Standard requirements (both existing and proposed)?***

Under a deliverer/first-seller approach, in-state renewable generators may be directly subject to GHG emissions regulation if their emissions attributes are sold separately from the electricity they produce. The CPUC, in R.06-02-012, is currently considering whether to allow the use of "unbundled" Renewable Energy Credits (RECs) for some or all of a retail provider's RPS compliance. Because RECs are defined to encompass "all renewable and environmental attributes,"[8] including avoided GHG emissions, the introduction of RECs in the California RPS would complicate GHG emissions accounting. If the CPUC determines that RECs that have been unbundled from the electricity produced by a renewable generator can be used for RPS compliance, that electricity should be assigned a non-zero GHG emissions value, even if it was produced by a zero-emitting renewable facility. Assigning a positive GHG emissions value to

[8] California Pub. Util. Code §399.12(g)(2).

"null" renewable power avoids double-counting of GHG emissions attributes, and reflects the fact that the emissions attributes of the renewable facility have already been sold in a separate transaction. The ultimate REC purchaser, which is presumably a retail provider, has title to the GHG emissions attributes of the REC.

However, the point of regulation for the RPS program is the retail provider, not the renewable generator. Adopting a deliverer/first-seller approach would create a disconnect between the GHG point of regulation (in-state renewable generators), which supplies the GHG emissions benefits, and the RPS point of regulation (retail providers), which ultimately claims those benefits. If the state chooses to adopt a deliverer/first-seller approach, the Commissions must determine how to reconcile these different regulatory regimes so that the emissions benefits of renewable generation are neither double counted nor discounted.

***23. How should renewable energy generators be treated under a deliverer/first-seller system?***

The treatment of renewable generators under a deliverer/first-seller system should differ depending on whether the CPUC authorizes the use of unbundled RECs for RPS compliance. If the CPUC does not authorize REC trading, renewable generators participating in the RPS program will continue to sell electricity bundled with the environmental attributes. The GHG emissions associated with this electricity generation is zero or near-zero, and these renewable generators will not be required to obtain emissions allowances for their generation.

Should the CPUC authorize REC trading, renewable generators that sell RECs separately from the underlying electricity are, for GHG compliance purposes, no longer producing zero emissions electricity. The electricity generated by these facilities should have a positive, non-zero GHG emissions value to reflect the separate sale of the emissions attributes and to prevent double-counting of emissions benefits. Therefore, renewable generators that sell electricity without the corresponding RECs may require GHG emissions allowances for those electricity sales under a deliverer/first-seller system. These allowances could be purchased, perhaps with the aid of revenues from any auctioning of GHG emissions allowances, or obtained through free allocation. If the state adopts a deliverer/first-seller approach, the Commissions should seek to minimize the

regulatory burden on renewable generators, which tend to be owned by smaller companies with fewer resources than companies owning large conventional generators, while still ensuring that the GHG emissions benefits of renewable energy are appropriately recognized and accounted for.

***24. Compare and contrast the impact of a deliverer/first-seller and a load-based approach on the voluntary renewables market.***

Under either a deliverer/first-seller or a load-based approach, renewable generators that sell their environmental attributes to voluntary markets produce electricity that should be assigned some non-zero GHG emissions value. If the electricity produced by these facilities were treated as zero emissions power, the GHG attributes of the renewable energy would be double counted by the purchaser of voluntary attributes and the purchaser of the commodity electricity. The major difference between a deliverer/first-seller approach and a load-based approach for the voluntary market is that the former potentially presents a greater regulatory burden on renewable generators. By directly regulating generators, a deliverer/first-seller approach might require renewable generators that sell into voluntary markets to obtain enough emissions allowances to account for the GHG emissions corresponding to the commodity electricity they produce. If these regulatory burdens become too complex or costly, some renewable generators, which are often owned by smaller companies with fewer resources than larger generating companies, may choose to refrain from participating in voluntary markets.

Rather than require renewable generators to obtain allowances for the GHG emissions associated with their "null" power production, the state could periodically reduce the mandatory GHG cap to account for voluntary purchases of renewable energy (provided that the renewable energy purchases are certified to ensure that GHG attributes are not double counted). This approach is consistent with the optional treatment of voluntary renewable energy sales in the Regional Greenhouse Gas Initiative Model Rule.[9] If the state adopts a deliverer/first-seller structure, this approach might impose less regulatory burden on renewable generators selling into voluntary markets.

[9] See Subpart XX-5.3(d) of the Regional Greenhouse Gas Initiative Model Rule, 1/5/07 Final with Corrections.

The voluntary market for renewable energy provides an avenue for businesses and individuals to reduce GHG emissions. The Commissions should ensure that the state does not unintentionally seal off such avenues for meaningful voluntary action by promoting policies that recognize the GHG emissions benefits provided by the voluntary renewables market. Because the voluntary renewables market has the potential to encourage investments in renewable energy above and beyond the RPS-mandated levels, the Commissions should design GHG regulations for the electric sector that facilitate, rather than frustrate, voluntary renewable development.

***25. Would one approach (deliverer/first-seller or load-based) have an advantage over the other in producing the greatest amount of emissions reductions through modifications (e.g., retrofitting, efficiency improvements, etc.) to existing power plants? Why?***

The greatest emission reductions that are likely to occur under either regulatory approach will be those reductions associated with the measures over which the regulated entities have the most control. For in-state power plants, the first-seller approach would have an advantage in encouraging a greater amount of emissions reductions through modifications to existing power plants. As discussed above, the load-based approach would likely have an advantage in encouraging long-term investments in emission reduction measures such as end-use efficiency, renewable energy, and low-carbon generators.

## E. Reporting, Tracking, and Verification

***26. What would be the data and administrative requirements of the deliverer/first-seller approach?***

The key question here is whether CARB would have authority and access to first identify first-sellers and then verify the identity of first-sellers and verify the emissions information reported by first-sellers.

***27. How would the deliverer/first-seller approach relate to the Public Utilities Commission/Energy Commission Staff reporting protocol proposal, i.e., would the deliverer/first-seller approach require modifications to the Staff***

***reporting proposal, or could it serve as an interim reporting protocol? If modifications are required, what exactly would they be?***

The Commissions' staff proposal could possibly serve as an interim reporting protocol, but if the first-seller approach is chosen, then reporting specific to that approach must be developed as soon as possible. Especially since the state does not have any experience regulating first-sellers, if the first-seller approach is ultimately selected, it is important that appropriate reporting protocols (specifically for those importing first-sellers, since in-state generation is likely already covered by CARB's current reporting regulations) be developed, adopted, and put into practice well before the AB 32 limits are effective in 2012 such that any kinks can be worked out before the reporting by first-sellers is relied upon for compliance purposes. If the Commissions choose to recommend to CARB a first-seller approach for the electric sector, they should also recommend to CARB that developing an appropriate first-seller reporting protocol should be the first priority for development for the next round of reporting protocols to be adopted.

***28. If a deliverer/first-seller approach is adopted, what would be the pros and cons of requiring reporting both from deliverers/first sellers and retail providers, in order to provide ARB with multiple control data sets for comparison?***

If the first-seller approach is adopted, it would be *necessary* to require reporting from first-sellers and it would still be very useful to require reporting from retail providers, both to provide the information to consumers and to assist in long-term planning and procurement. Most importantly, as discussed above, retail sellers (together with their governing boards and regulators) make the key decisions regarding long-term investments in California's electricity sector. As such, both historical information about the retail provider's emissions "footprint" and forecasts of emissions will be essential to inform the long-term planning and procurement decisions that will ultimately determine whether California meets AB 32's 2020 emissions limit and the Governor's 2050 emissions reduction target. In addition, Californians support state action to curb global warming by large majorities. As a result, they will be interested in information about the emissions impact of the electricity provided by their retail seller.

***29. Compare and contrast the ability of a deliverer/first seller and a load-based system to create confidence for investors and confidence for environmental advocates about tracking and compliance.***

***30. Who/what governs access to the purchasing/selling entity data on the NERC E-tags? What would a state agency need to do to obtain access to E-tag data?***

This is an essential question to ask, since if E-tags are to be relied upon for first-seller identification and/or emissions reporting, CARB and/or other state agencies must have access to this information.

***31. What role would the CAISO play, if any, in the implementation and administration of a deliverer/first seller program? What role would other control area operators or balancing authorities play?***

## F. GHG Emissions Allowance Allocation Issues

***32. Would implementation of a deliverer/first-seller approach necessitate auctioning of GHG emissions allowances? Why or why not?***

Yes, implementation of the first-seller approach would necessitate auctioning of allowances. NRDC/UCS believe that under any regulatory approach, allowances must be distributed in the public interest, since allowances represent permission to use the atmosphere, a public good, to dispose of pollution. NRDC/UCS urge the state to ensure that any system to distribute allowances:

- not create large profits for businesses that are unrelated to actions to reduce GHG emissions;
- not penalize "early actors" that have proactively reduced GHG emissions already;
- ensure that emitters are appropriately motivated to make investments that will reduce emissions; and
- reduce costs to consumers.

Since many first-sellers are private companies that are economically unregulated, giving allowances away for free would violate the first principle above and result in "windfall" profits. This is because these first-sellers will raise their prices to reflect the "opportunity cost" of allowances, passing that cost onto consumers, even if they receive allowances for free. Studies have shown that the value of the free allowances would far

exceed these sources' costs of investments in emission reductions, resulting in a windfall.[10] Auctioning allowances would require first-sellers to pay for the right to pollute, and meets all of the principles outlined above. Auction revenues should also be used for public purposes and to meet the goals of AB 32, including:

- Support investments in low-emitting technologies;
- Invest in RD&D of new technologies to reduce GHG emissions;
- Provide economic opportunities to low-income and disadvantaged communities, as well as small businesses, schools, affordable housing associations, and other community institutions;
- Assist with efforts to achieve air quality and toxic reduction goals; and
- Reduce costs to consumers, for example through investments in end-use efficiency beyond the state's existing programs.

***33. If you do not believe that an auction would be required under the deliverer/first-seller approach, explain how an emissions allocation system would work under a deliverer/first-seller approach. In doing so, answer the following:***

***a. To whom would allocations be given?***

***b. If you recommend allowances be given to deliverers/first sellers, on what basis would allocations be given during any particular compliance period?***

***c. How would the state of California know how many allowances were needed by importers?***

***d. How would marketers be treated?***

***e. How would electricity service providers be treated?***

***f. Would zero-carbon generators also receive allowances?***

***g. What would be the likelihood of windfall profits under such a system?***

***h. How could such a system prevent windfall profits?***

***34. If you recommend allocation of allowances to retail providers, followed by an auction to deliverers/first-sellers, how would such an auction be administered? What kinds of issues would such a system raise?***

[10] See, for example, the discussion in *Allocating Allowances in a Greenhouse Gas Trading System,* National Commission on Energy Policy staff paper, www.energycommission.org/site/page.php?report=32.

## G. Relationship to Other Sectors Under AB 32 in California

***35. Would GHG emissions allowances created under a deliverer/first-seller compliance regime in the electricity sector be compatible for trading with other sectors in the California economy, assuming a multisector cap–and-trade system? How?***

As long as it is ensured that the allowances created in each sector represent the same amount of GHG emissions the holder is permitted to pollute such that they are fungible, the allowances created under a first-seller compliance regime should be compatible for trading with other sectors under a multisector cap and trade system.

## H. Relationship to a Multi-State System Such as the Western Regional Climate Action Initiative

***36. Compare and contrast the ability of a deliverer/first-seller and a load-based approach to avoid double-counting of emissions between states.***

The most important factor to avoid double-counting is to work with other states to adopt compatible approaches. Both the first-seller and load-based approaches could be susceptible to double-counting of emissions once the systems are extended to more than one state. In particular, if different states adopt different regulatory approaches, double-counting will invariably be a problem; since both approaches account for imported power, the emissions of these imports have the potential to overlap with the emissions of the regulated entities for other states.

Assuming, however, that all the states in a region adopt the same approach (either first-seller or load-based), either approach can be designed to avoid double-counting. Under the load-based approach, states could work together to avoid double-counting through either a regional emissions tracking system or by subtracting out one state's "claimed power" that another state uses to calculate emissions factors for imports, as was proposed by the Commissions' staff reporting protocol proposal. Under the first-seller approach, states could require allowances to be surrendered only by first-sellers that are in-state or importing from a state that is not part of the program.

***37. How should exports from California be handled under a deliverer/first-seller approach? Would the proper treatment of exports depend on whether the receiving state has a cap-and-trade system? If so, how?***

Exports under a first-seller approach would already be captured through regulating the in-state first sellers (in-state generators).

***38. If some states in the region adopt a source-based system (or a load-based system which also regulates exports), how would the State of California verify the true source of imports in order to avoid double-regulation of power imported from other capped states?***

A comprehensive regional tracking system would help to avoid double-counting among different states that have capped systems.

***39. How would a deliverer/first-seller approach function relative to an Oregon load-based system (as currently proposed by Oregon)?***

If California adopts a first-seller approach, while Oregon operates a load-based system, double-counting concerns arise, particularly for situations in which an Oregon retail provider imports power from a California generator (who would be regulated as an in-state first seller in California).

## I. Interaction with Potential Federal Regulation

***40. How easily could a deliverer/first-seller approach scale or link to multi-state, national, or international programs?***

There are at least two factors to consider in scaling or linking: 1) whether allowances are fungible between the programs, and 2) whether there are double-counting concerns among the systems. The first linking consideration would apply under both a first-seller and load-based approach and requires that allowances are compatible; i.e., the allowances in each system must represent the same quantity of emissions (ensuring that "a ton is a ton"), and the different programs will also likely require comparable stringency (of the caps, mandatory reporting, strong enforcement, etc.) of the other programs they link with. In order to scale beyond a single-state program, double-counting concerns must also be addressed, as described in the responses above.

***41. Would one approach (deliverer/first-seller or load-based) be easier to transition into a potential federal GHG regulatory system? If one would be superior in this respect, explain why and what assumptions you are making about the likely federal framework.***

NRDC/UCS believe it is likely that the federal program will use a generator-based point of regulation, because such an approach is simpler administratively, provides more precise emissions accounting, and leakage issues are minimal if it is applied nation-wide. A generator-based approach has also been proposed in most of the bills pending before Congress. In addition, NRDC/UCS believe that it will be in California's best interest to integrate with the federal cap and trade program (and not maintain a separate one based on a different regulatory model), while continuing its traditional role in administering the many programs that directly spur global warming solutions (such as aggressive energy efficiency programs and standards, renewables procurement, etc.). As such, a first-seller approach, which already would regulate in-state generators, would be easier to transition than a load-based cap into a federal regulatory system (assuming it is generator-based), though transitional issues will inevitably arise.

However, if the future federal program is based on an upstream point of regulation (as the Bingaman/Specter federal "Low Carbon Economy Act" of 2007 currently proposes), neither the first-seller or load-based designs under consideration in California could be easily transitioned to integrate into this type of federal system.[11] The Bingaman/Specter bill would establish an upstream point of regulation except for coal-fired power plants, which would be regulated as point sources. Since California has no large in-state coal-fired power plants, California would have to discard *either* the first-seller or load-based regulation approach in order to integrate into an upstream federal system like that envisioned by the Bingaman/Specter bill.

***42. What are the merits of the deliverer/first-seller proposal as a model for other governments' efforts, particularly at the national level?***

As noted above, NRDC/UCS believe it is likely that the federal program will use a generator-based point of regulation, and therefore the first-seller approach, which uses a

[11] For more information about the Bingaman/Specter bill, see http://energy.senate.gov/public/index.cfm?FuseAction=IssueItems.View&IssueItem_ID=55.

generator-based system for in-state power plants, could serve as a useful model for the national system.

As importantly, California's program design choices (and not just the selection of the point of regulation) may have greater influence on the shape of a federal program if it adopts the first-seller, or another generator-based approach. This is especially important with respect to the issue of allowance auctions. Under a scenario in which Congress adopts a generator-based cap, the most important thing California can do to protect consumers is to support allowance auctions and the principle that the value of allowances should be used to reduce costs for consumers and provide other public benefits.

### J. Questions for Legal Briefing

NRDC is filing under separate cover responses to these legal questions about the first-seller approach.

## IV. Other Comments on MAC Report Recommendations

The ALJ ruling also requested comments "on aspects of the Market Advisory Committee report in addition to the issues raised in the set of questions below [on the first-seller approach]" (p. 2). For the Commissions' reference and convenience, attached to this filing are NRDC and UCS' comments to the MAC on their draft report. The final MAC report did not differ substantially from the draft report, so NRDC and UCS' comments still hold.

## V. Conclusion

NRDC and UCS appreciate the Commissions' efforts to better understand and evaluate the legal, regulatory, market and operational issues associated with the different regulatory approaches proposed for the electric sector. NRDC and UCS look forward to discussing these comments with other parties at the August 21, 2007 en banc hearing.

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Respectfully submitted,

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**CERTIFICATE OF SERVICE**

I hereby certify that I have this day served a copy of the **"Opening Comments of the Natural Resources Defense Council (NRDC) and Union of Concerned Scientists (UCS) on the 'First Seller' Approach and Other Recommendations of the Market Advisory Committee Report" in the matter of R.06-04-009** to all known parties of record in this proceeding by delivering a copy via email or by mailing a copy properly addressed with first class postage prepaid.

Executed on August 6, 2007 at San Francisco, California.

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